

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: GROLLITSCH; Helmut

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EXAMINER: Miller, J.R.

TITLE: METHOD AND APPARATUS FOR DETECTING A CRACKED OR BROKEN CASE

Amendment B: REMARKS

Upon entry of the present amendments, previous Claims 22 - 38 have been canceled and new Claims 39 - 51 substituted therefor. Reconsideration of the rejections, in light of the forgoing amendments and present remarks, is respectfully requested. The present amendments have been entered for the purpose of distinguishing the present invention from the prior art and for the purpose of placing the application into a better condition for allowance.

In the Office Action, it was indicated that Claims 22 - 27, 30 and 31 were rejected under 35 U.S.C. § 102(b) as anticipated by European Patent No. 0043170. Claims 22 - 24 and 28 - 31 were rejected under 35 § U.S.C. 103(a) as being unpatentable over British Patent No. 2,052,765 in view of the Sherepa patent. Claim 28 was rejected under 35 U.S.C. § 103(a) as being unpatentable over European Patent No. 0043170 in view of the Sherepa patent. Claims 32 - 38 were rejected under 35 U.S.C. § 103(a) as being unpatentable over European Patent No. 0043170 in view of the Huang patent. Additionally, Claim 32 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

As an overview to the present reply, Applicant has canceled previous Claims 22 - 38 and substituted new Claims 39 - 51 therefor. Each of the independent Claims 39 and 46 emphasize the

"ejecting" feature of the present invention. In particular, independent Claim 39 recites the "ejection means" which is cooperative with the sensor means for ejecting the case "directly" from said conveyor means when the wall of the case has deflected beyond the desired amount. The "ejection means" is defined as a ram having a cylinder affixed to the frame with a piston extending outwardly therefrom. The piston is movable between a first position away from the case on the conveyor and a second position which urges against the case so as to separate the case from the conveyor means. Dependent Claims 40 - 42 correspond, respectively, to the limitations found in previous dependent Claims 25 - 28. Dependent Claim 44 and 45 correspond, respectively, to the limitations found in previous dependent Claims 30 and 31.

New independent Claim 46 specifically recites the step of "ejecting the case directly from the conveyor when the deflection of the wall is beyond the desired amount". As such, new independent Claim 46 incorporates the limitation of previous independent Claim 32 and the limitations of dependent Claim 37. Dependent Claims 48 - 50 correspond to the limitations of previous dependent Claims 34 - 36, respectively. New dependent Claim 51 corresponds to the limitations of previous dependent Claim 38.

The importance of this ejection feature was recited in the original specification. In particular, one of the "objects" of the present invention is defined in paragraph [0011] as:

It is another object of the present invention to provide a method and an apparatus whereby a broken case can be removed from a feedstream of cases.

In view of the system of the present invention, it is possible to carry out inspection, detection and ejection in a relatively rapid manner and a continuous process. As was stated in paragraph [0037] of the original specification:

The present invention is able to carry out the inspection, detection and ejection of the particular cases in a relatively rapid manner. It is believed that the test can be properly carried out within 0.5 seconds. As a result, there will not be a great deal of a backup along the conveyor 16.

Applicant respectfully contends that these features serve to effectively distinguish the present invention from the prior art combination.

Apparatus Claim 39 incorporates the limitations of previous independent Claim 22 and the limitations of dependent Claims 23 and 29. This claim was rejected based upon the combination of British Patent No. 2,052,765 in view of the Sherepa patent. British Patent No. 2,052,765 does describe a device for determining the strength of plastic crates. This system utilizes a conveyor onto which a plurality of cases are placed. This British patent describes a sampling processes whereby one of several cases can be discharged from the conveyor onto a separate table for inspection. A hydraulic ram is positioned adjacent to the conveyor for discharging the conveyor for inspection. On the table, various inspection processes are carried out with respect to plastic crate. If the plastic crate passes the inspection process, then a ram is used for the placing the crate back onto the conveyor. If the crate should fail the inspection, then another ram is used so as to discharge the crate from the table.

British Patent No. 2,052,765 does not disclose a continuous process on a single conveyor. It isolates a sample from the continuous flow of cases. As such, it does not provide for 100% inspection of the crates on the conveyor belt. The ram will eject the case for testing from the conveyor in contrast to ejecting the case directly from the conveyor if it fails the test. Relative to independent Claim 39, Applicant respectfully contends that there is no "ejection means" affixed to the frame of the conveyor for "ejecting the case directly from the conveyor means when the wall of

the case has deflected beyond the desired amount". There is no ram that has a piston movable to a second position for "urging against the case on the conveyor means so as to separate the case from the conveyor means". As such, British Patent No. 2,052,765 fails to achieve the efficiency of the present invention by carrying out the testing directly on the conveyor and then ejecting a defective crate directly from the conveyor during the moving and processing of the crates on the conveyor. British Patent No. 2,052,765 describes a rather complex process with complex mechanisms used for the testing of a sample of the crates on the conveyor. As such, the British patent is not able to achieve the 100% inspection capability of the present invention. The Sherepa patent was simply cited as showing a roller on a product container. The Sherepa patent does not show or suggest the ejecting of the plastic case from the conveyor if the testing fails. In fact, the Sherepa patent simply describes that it is desirable to "automatically mark" the improperly sealed container so that they can be easily identified. (See column 4, lines 37 - 39). As such, the prior art combination of British Patent No. 2,052,765 with the Sherepa patent would fail to show the ejection means as defined in independent Claim 39 of the present claims. On this basis, Applicant contends that independent Claim 39 is patentably distinguishable from the prior art combination.

Claim 46 incorporates the limitations of previous independent Claim 32, along with the limitations of dependent Claim 37. There is now recited a step of "ejecting the case directly from said conveyor when the deflection of the wall is beyond the desired amount." The combination of European Patent No. 0043170 with the Huang patent was recited for the rejection for this claim. Although European Patent No. 0043170 describes a process that is reminiscent of the present invention, European Patent No. 0043170 fails to provide for the ejection of the crate from the conveyor once the crate fails the testing. If the crate that is being tested in European Patent No.

0043170 fails the test, then it is simply replaced with an acceptable crate. There is no teaching or suggestion of the automatic ejection of the defective crate from the conveyor. The Huang patent simply shows a way of opening and closing the flaps of a package carton. It does not carry out testing nor does it carry out the "ejecting" step. On this basis, Applicant respectfully contends that the prior art combination fails to show the step of "ejecting the case directly from the conveyor when the deflection of the wall is beyond the desired amount".

Relative to the formality objection with respect to previous independent Claim 32, Applicant has revised the language found in new independent Claim 46 so as to correct for this informality.

Based upon the foregoing analysis, Applicant contends that independent Claims 39 and 46 are now in proper condition for allowance. Additionally, those claims which are dependent upon these independent claims should also be in condition for allowance. Reconsideration of the rejections and allowance of the claims at an early date is earnestly solicited. Since no new claims have been added above those originally paid for, no additional fee is required.

Respectfully submitted,

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Date

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